

FIG. 1

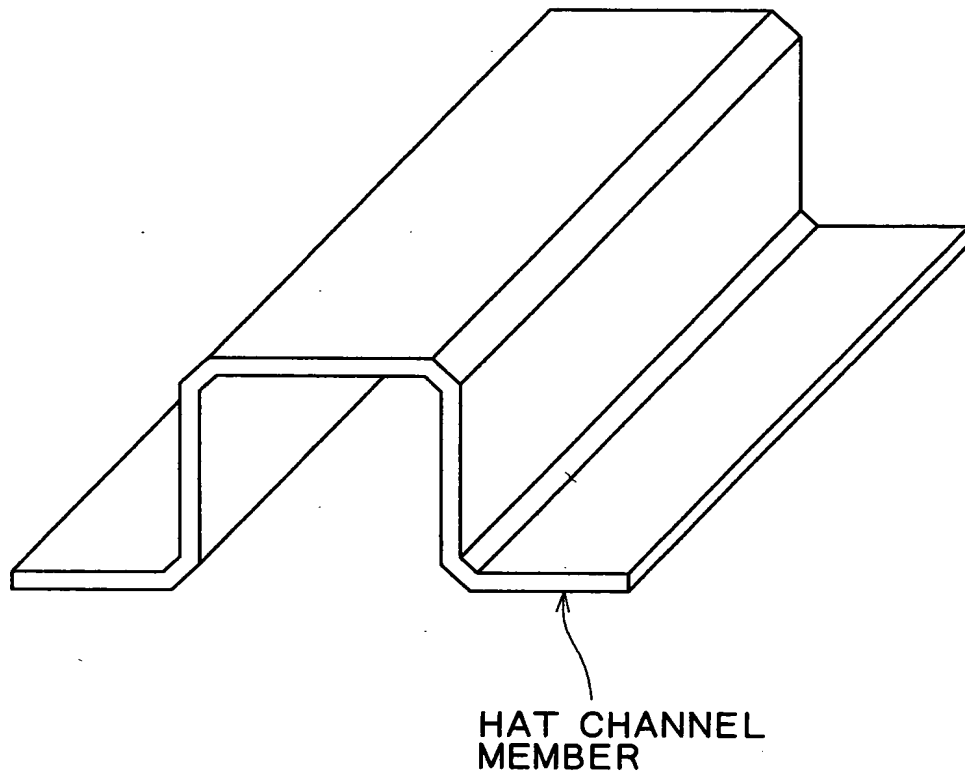


FIG. 2A

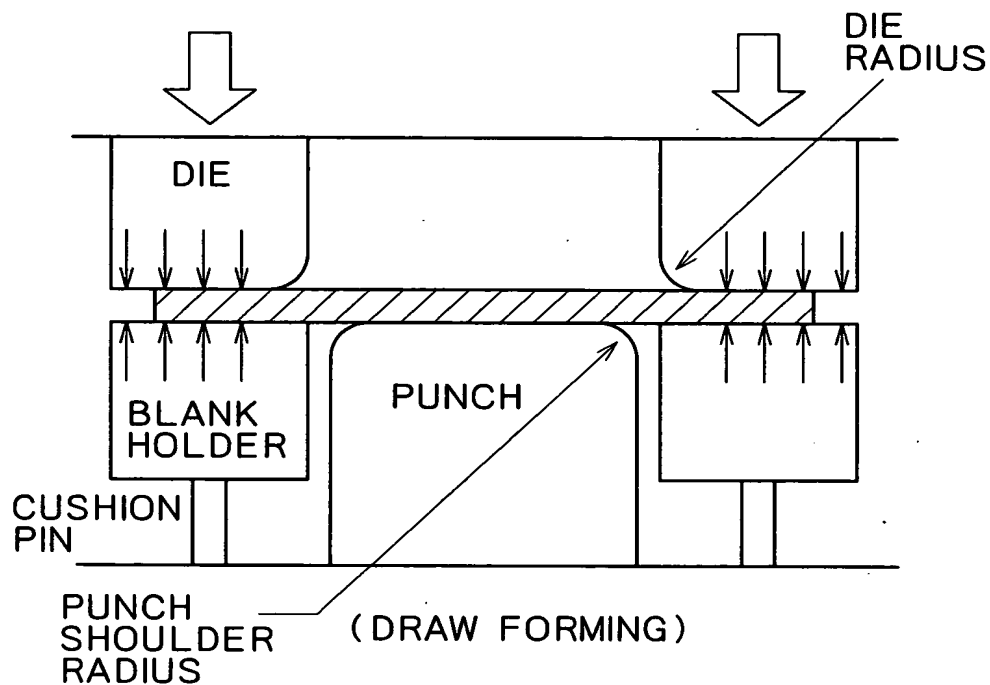


FIG. 2B

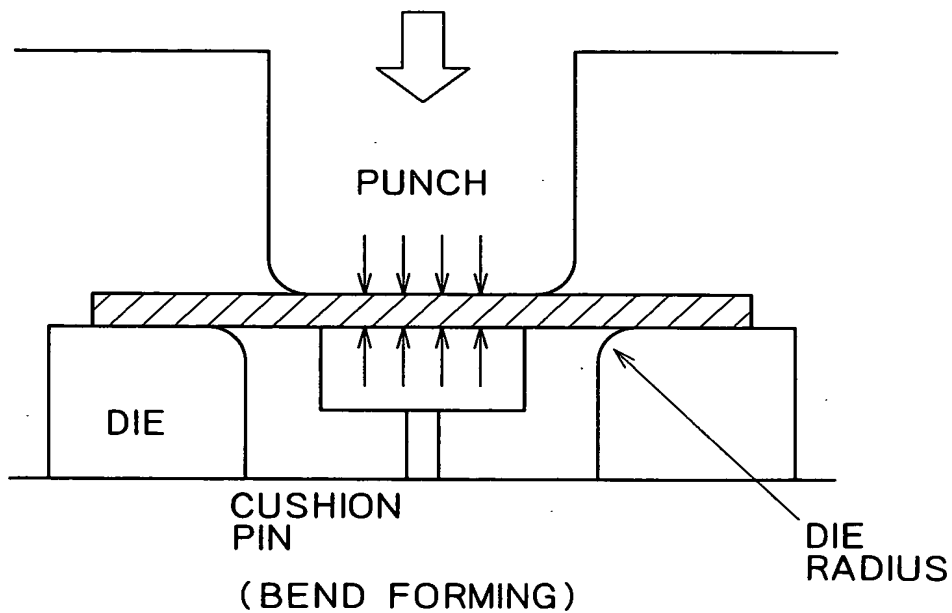
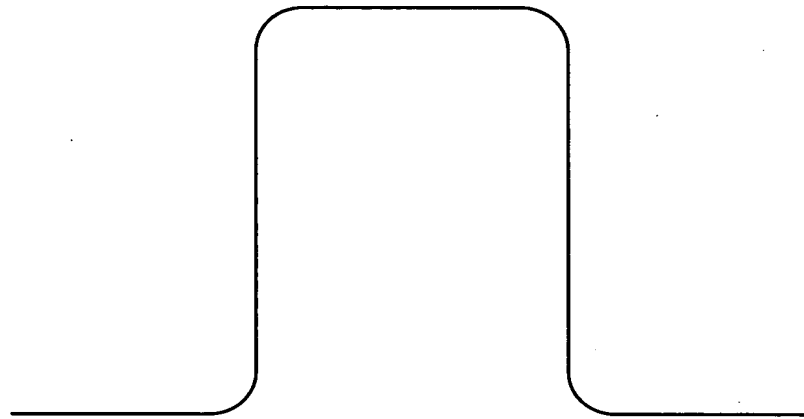
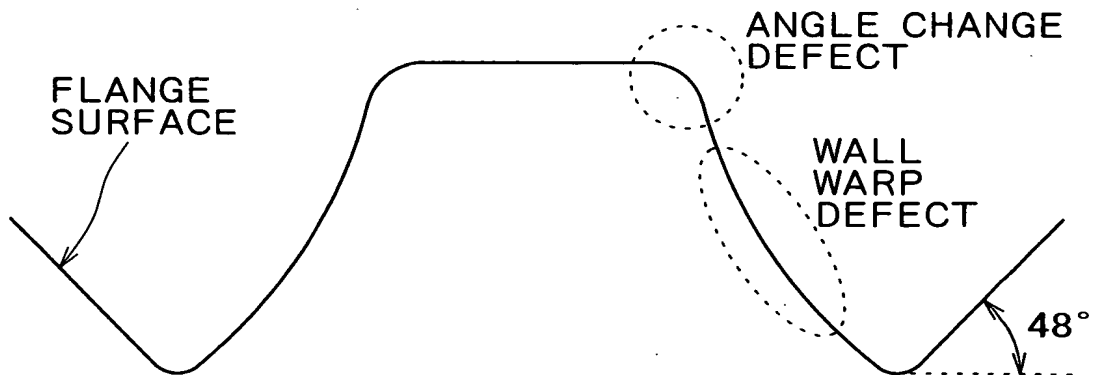


FIG. 3A



TARGET SHAPE
(SHAPE AT FORMING BOTTOM DEAD CENTER)

FIG. 3B



SHAPE AFTER FORMING
(SHAPE AFTER RELEASE FROM DIE)

FIG. 4

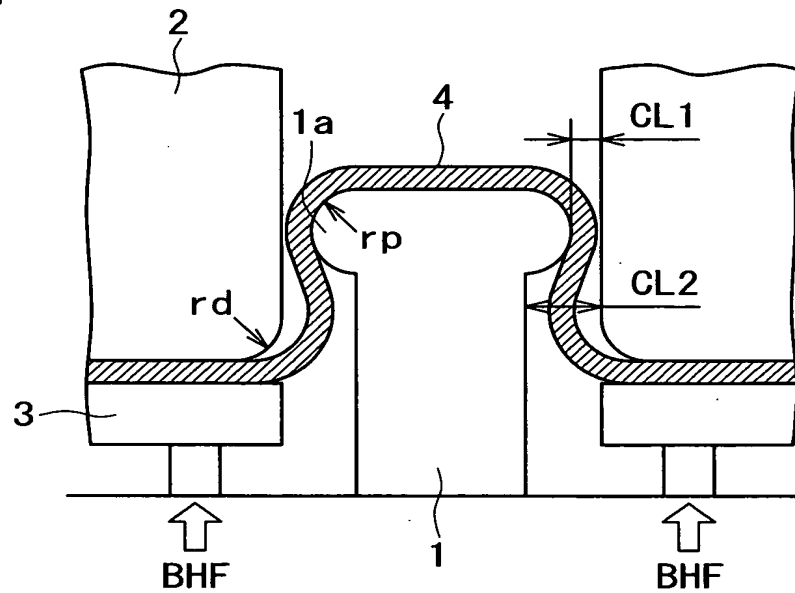


FIG. 5A

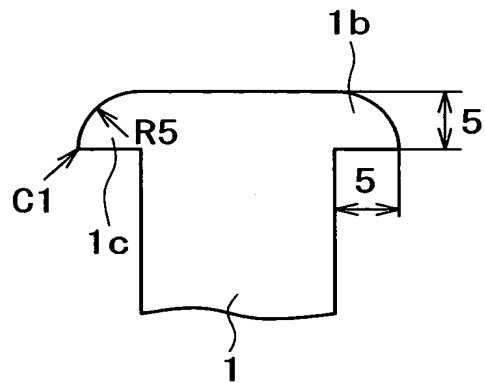


FIG. 5B

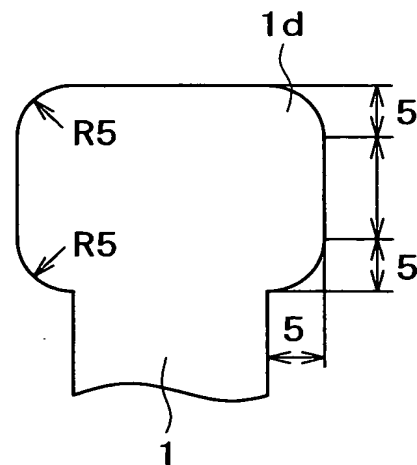


FIG. 6A

① $CL1 = t + 0.4\text{mm}$

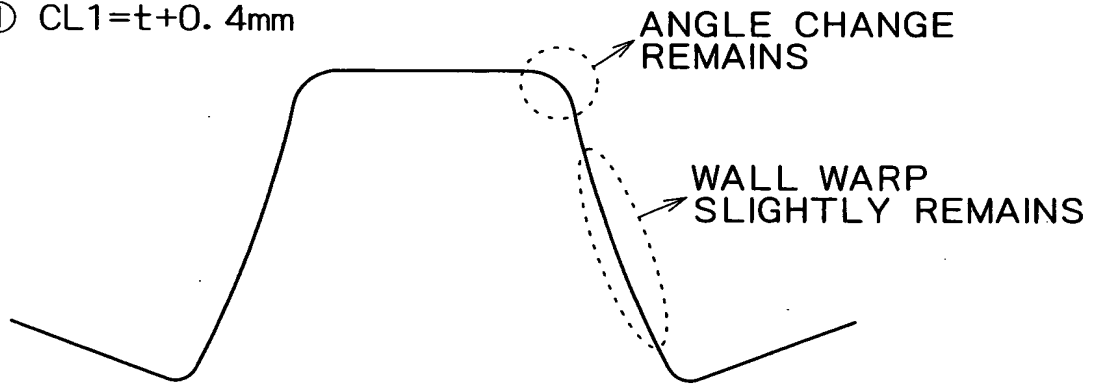


FIG. 6B

② $CL1 = t + 0.2\text{mm}$

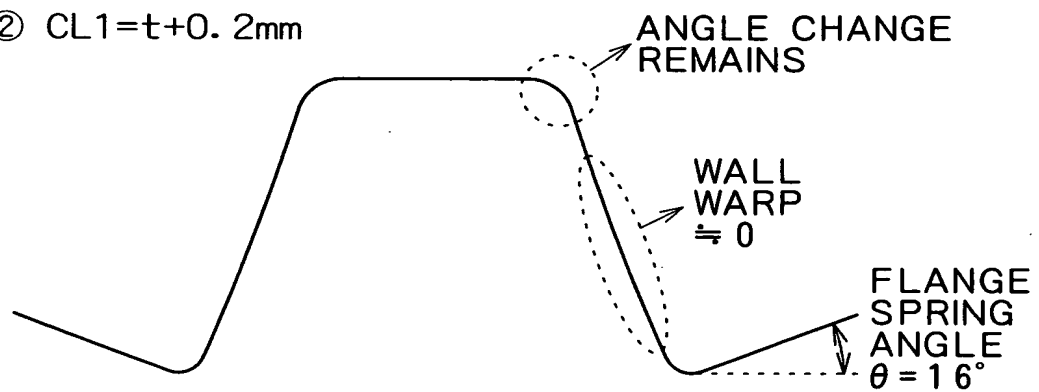


FIG. 6C

③ $CL1 = t\text{mm}$

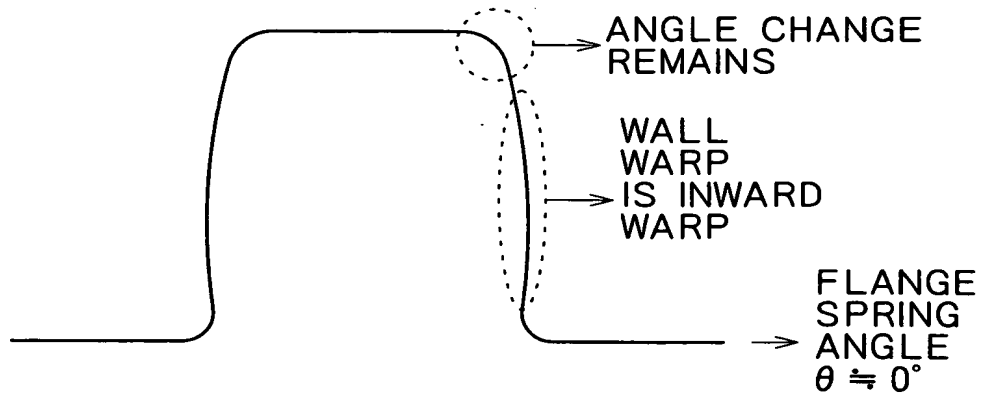


FIG. 7

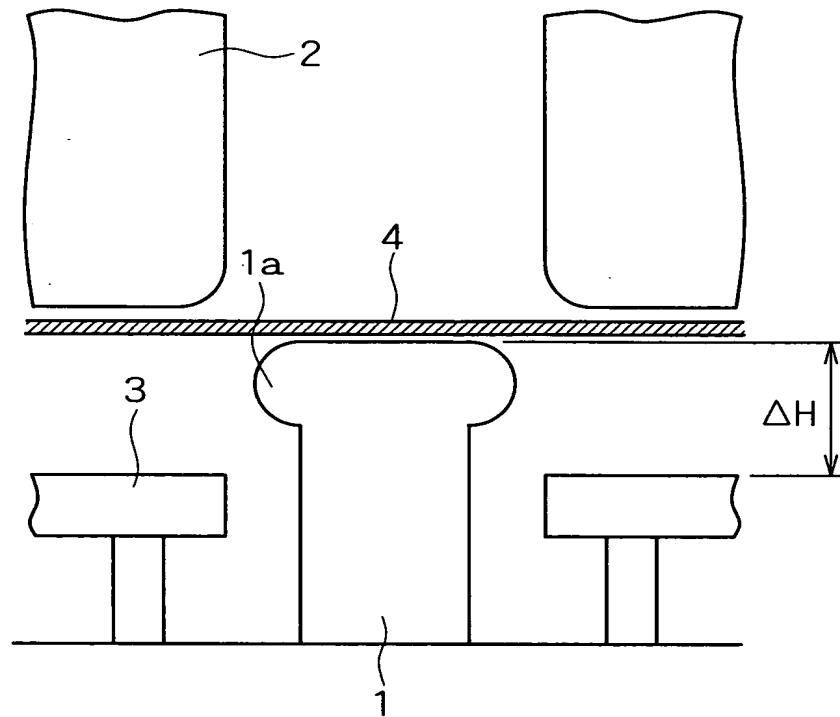


FIG. 8

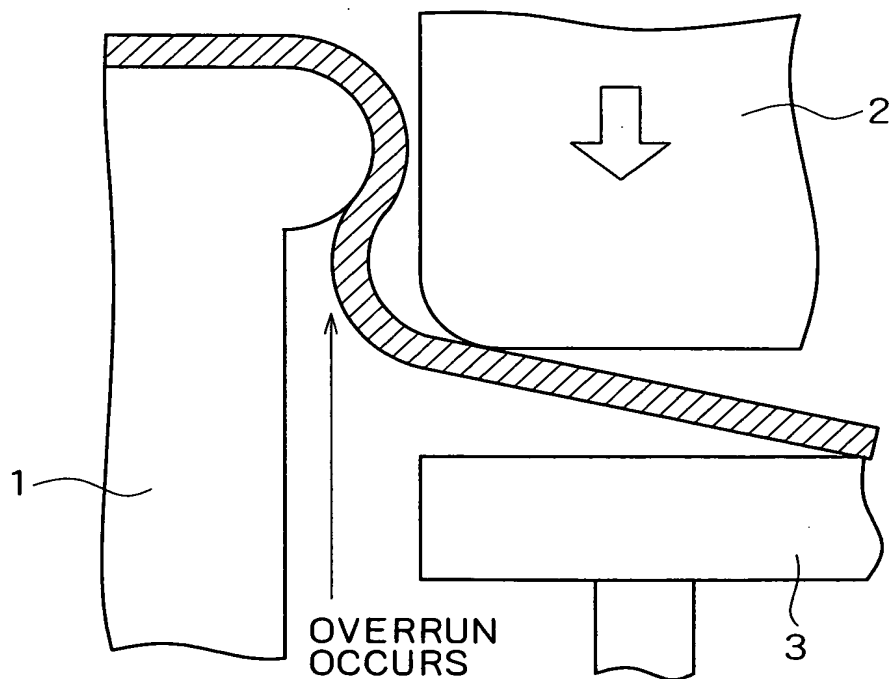


FIG. 9A

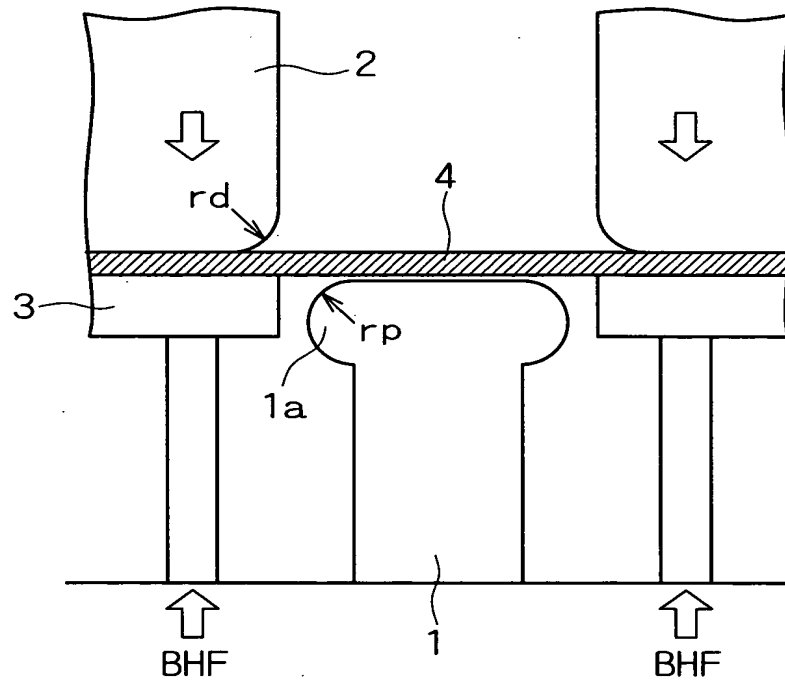


FIG. 9B

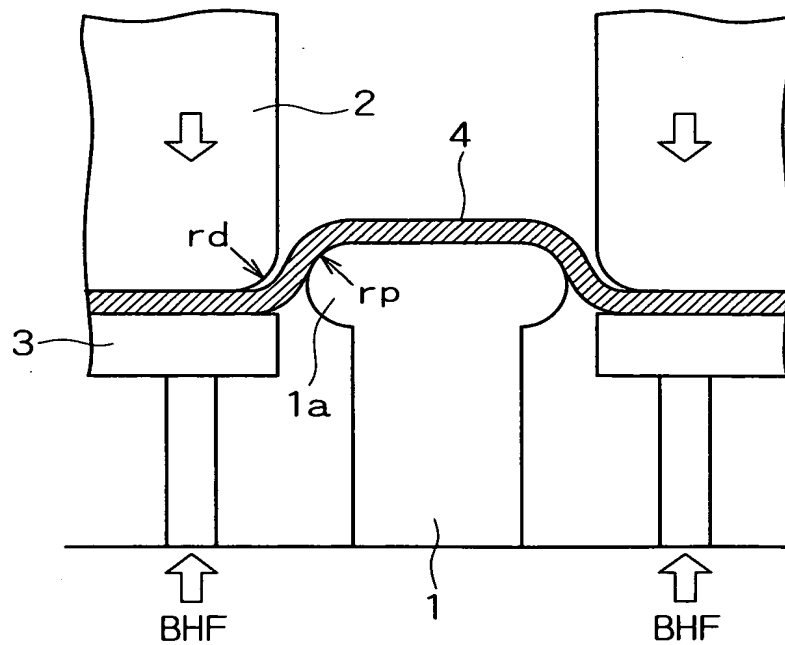


FIG. 10

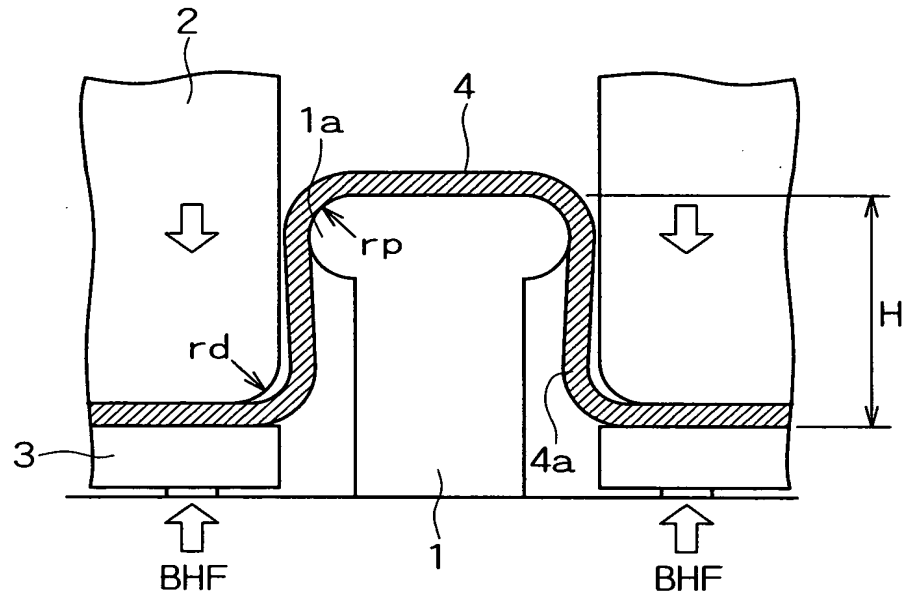


FIG. 11

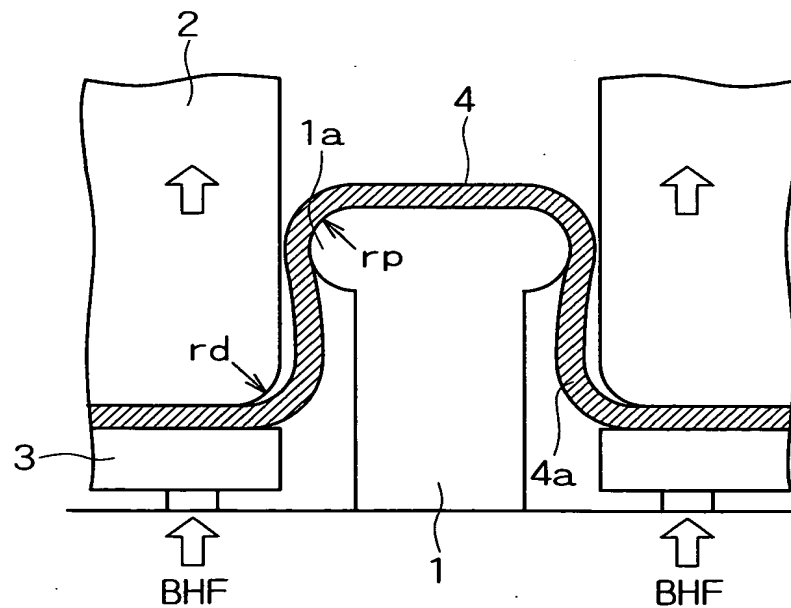


FIG. 12A

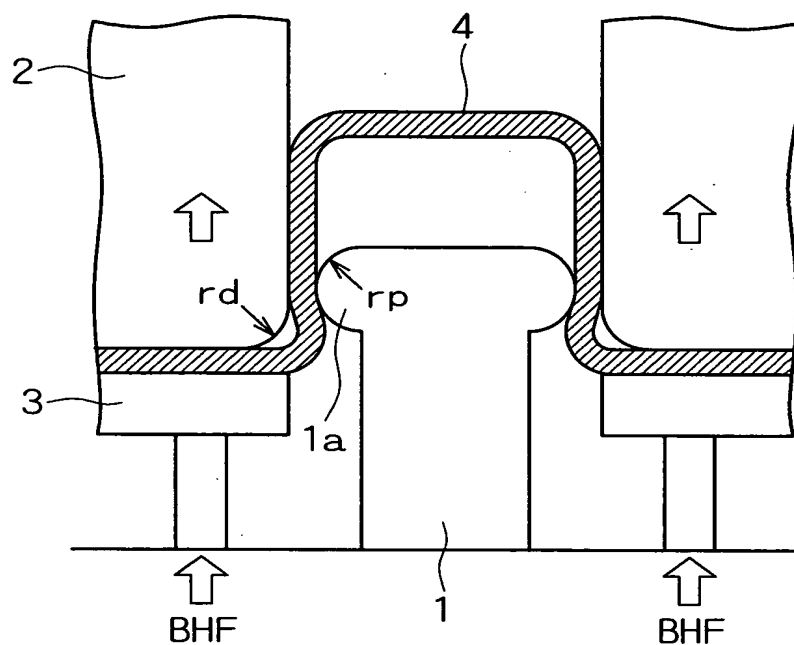


FIG. 12B

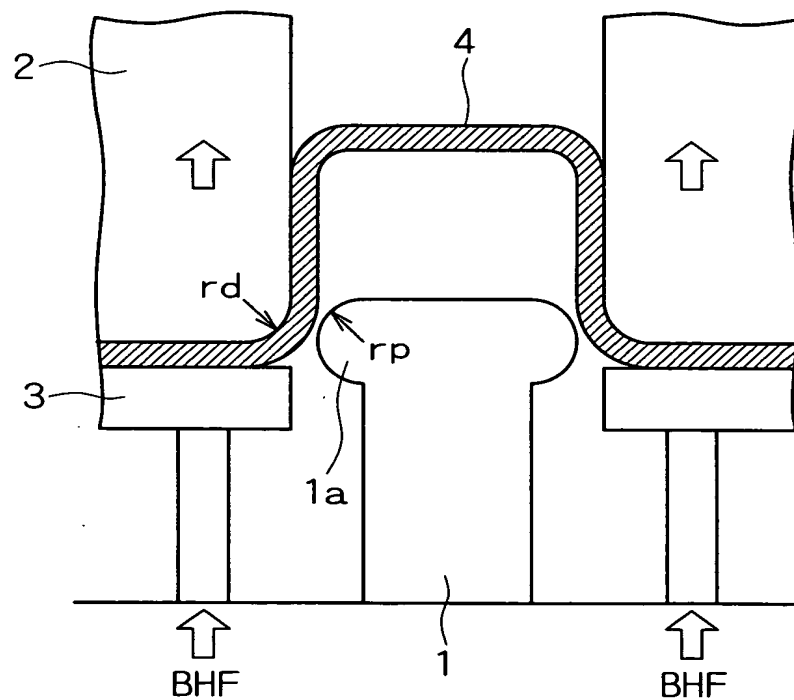


FIG. 13

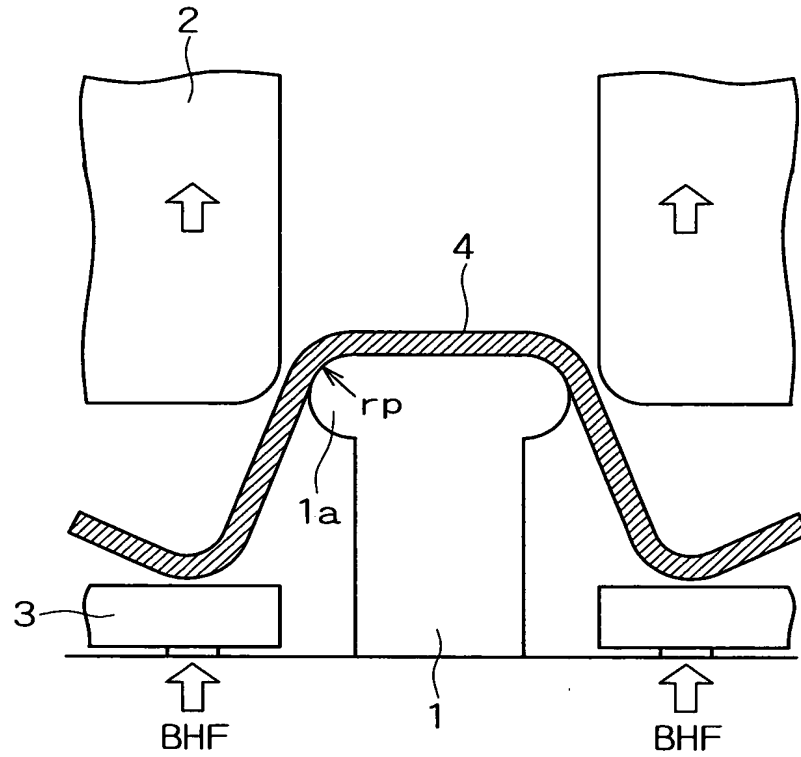
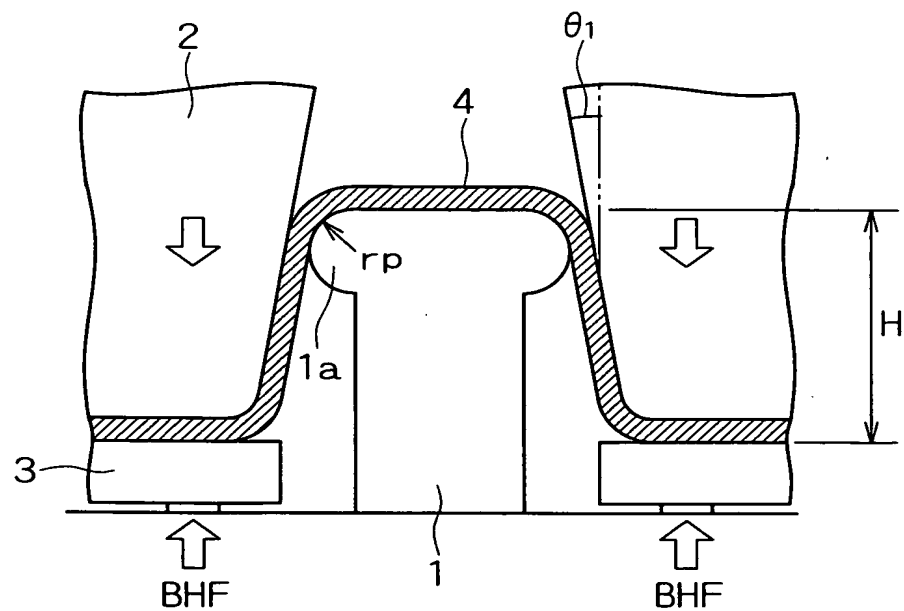


FIG. 14



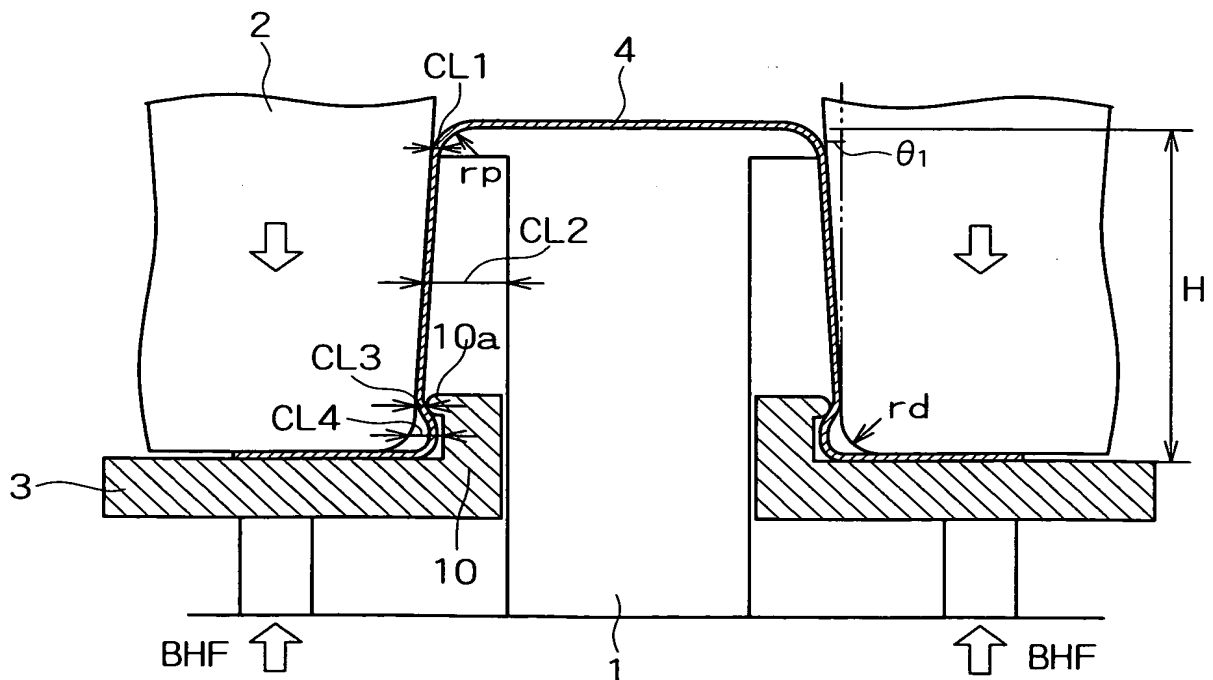


FIG. 17A

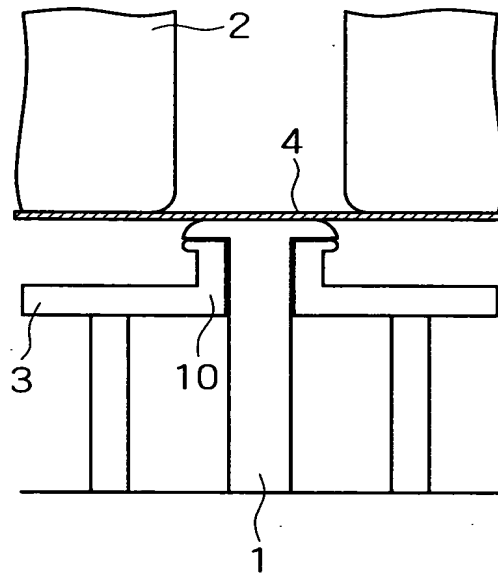


FIG. 17B

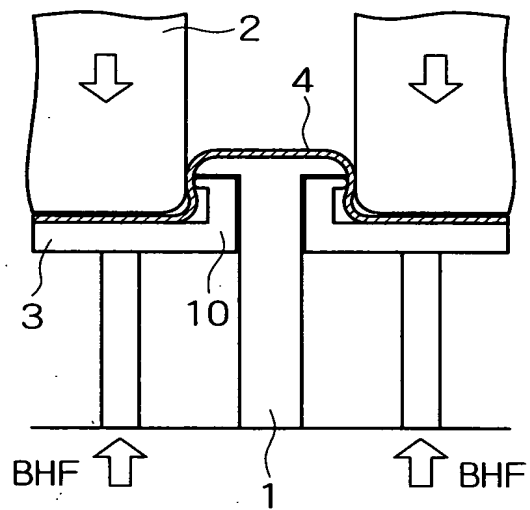


FIG. 17C

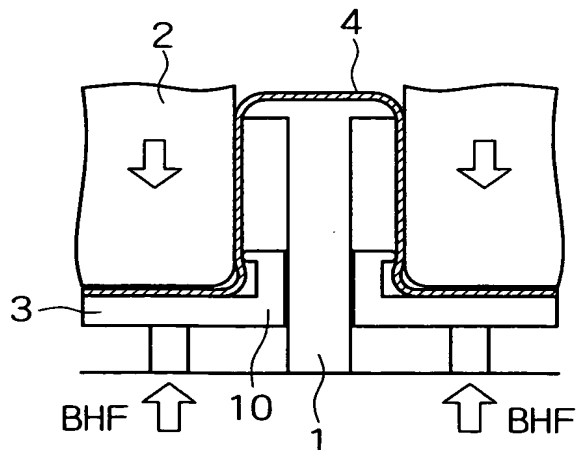


FIG. 18

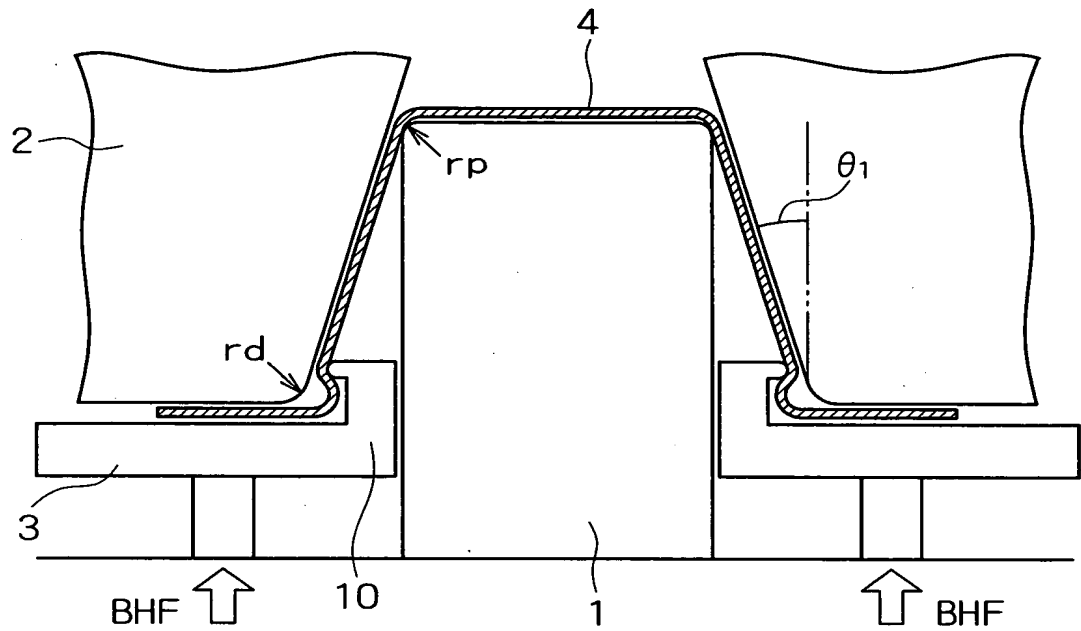


FIG. 19

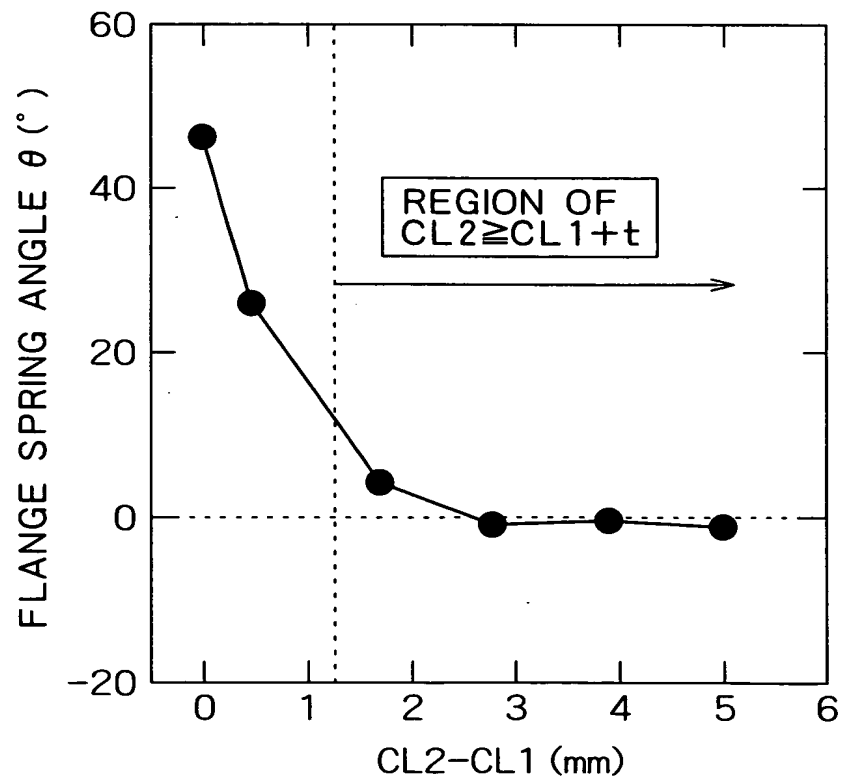


FIG. 20A

① CL2-CL1=0mm

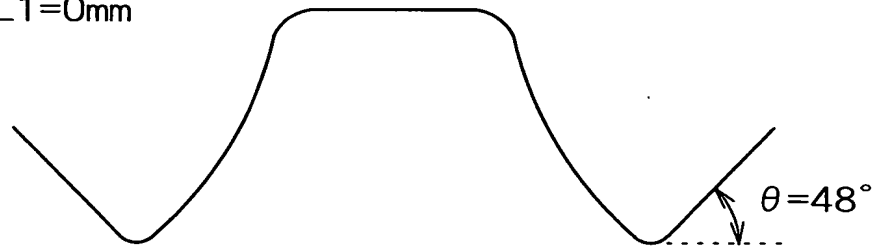


FIG. 20B

⑥ CL2-CL1=5mm

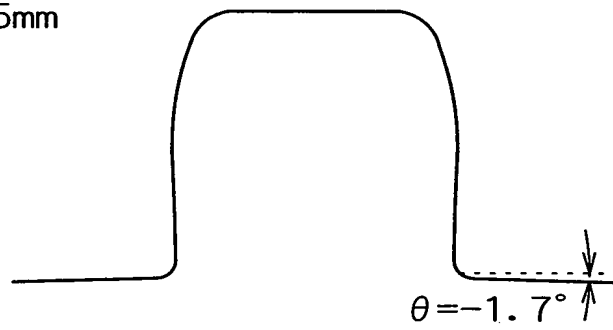


FIG. 21

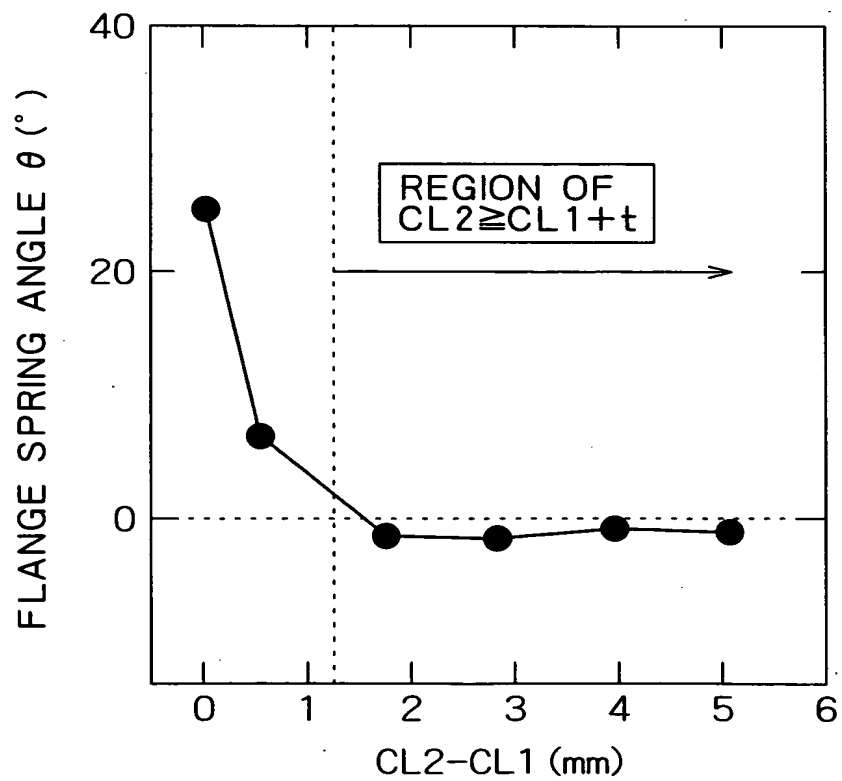


FIG. 22

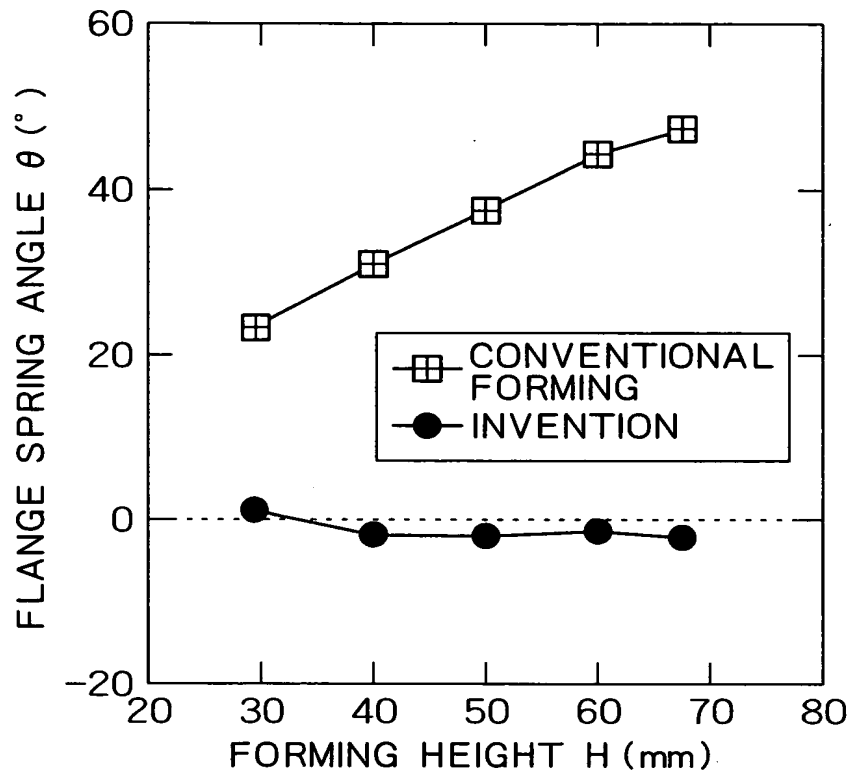


FIG. 23

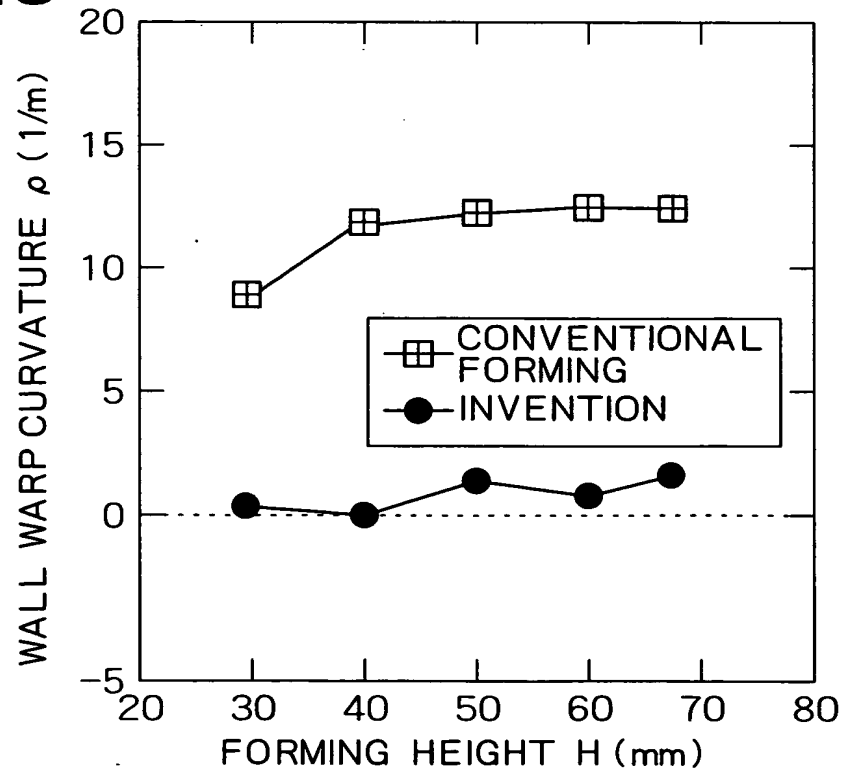


FIG. 24

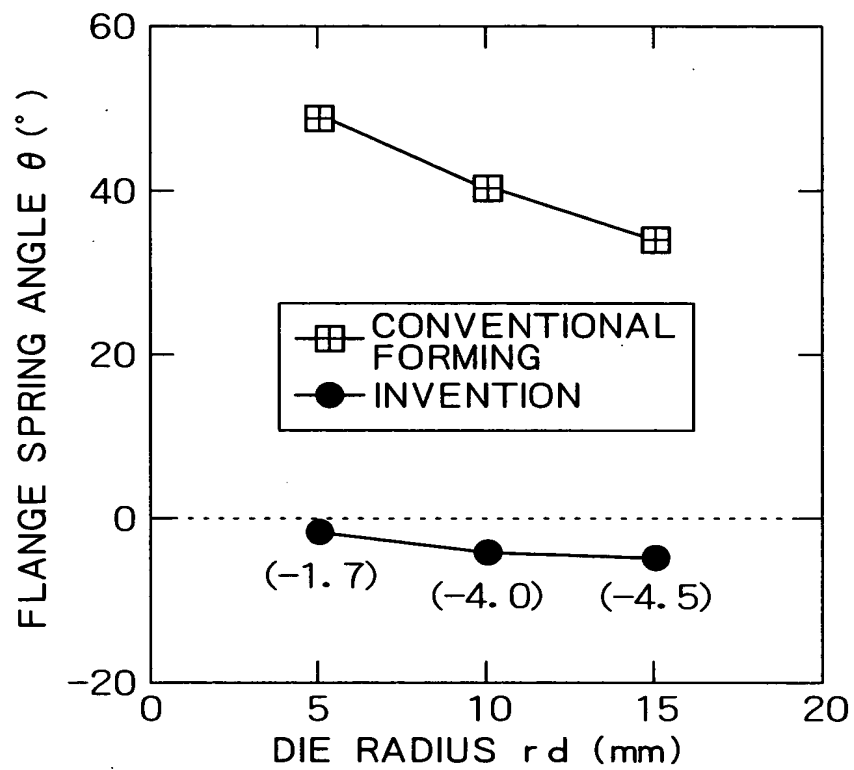


FIG. 25

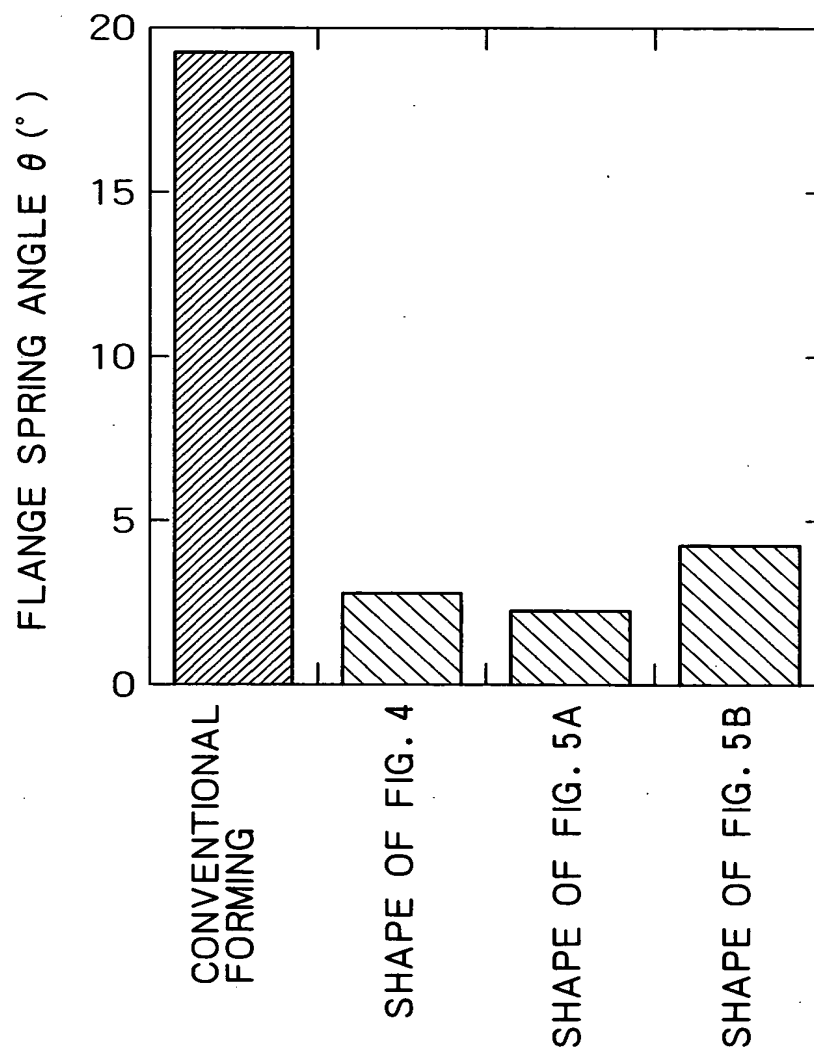


FIG. 26

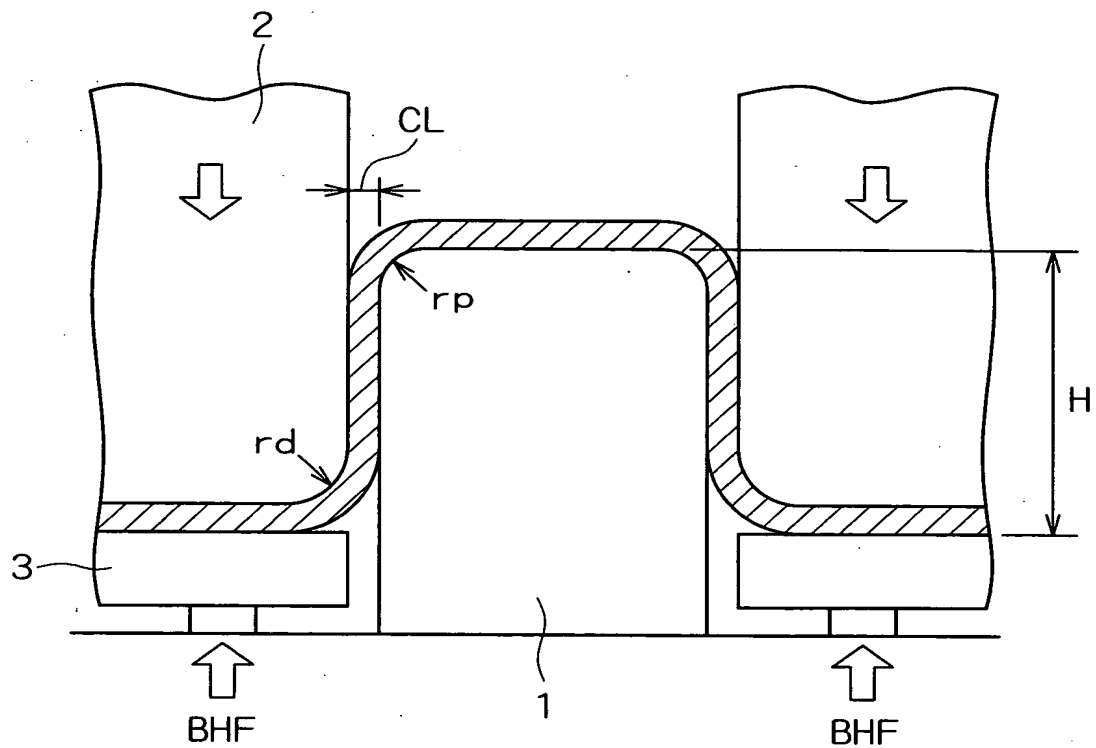


FIG. 27A

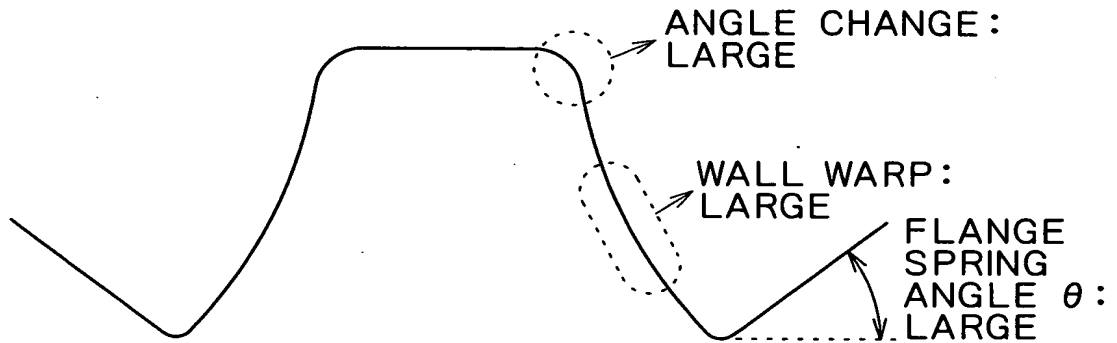


FIG. 27B

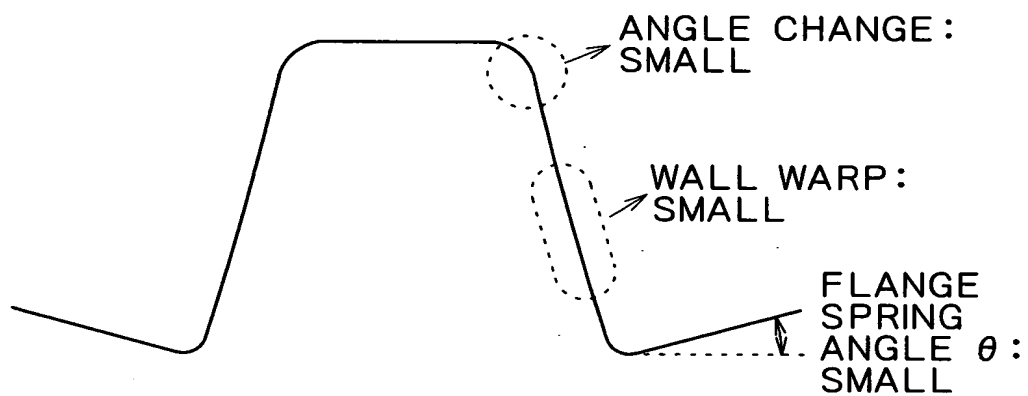


FIG. 27C

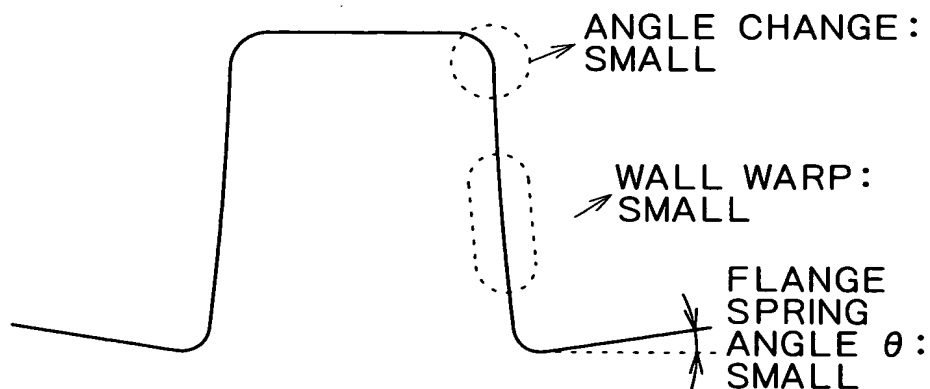


FIG. 28

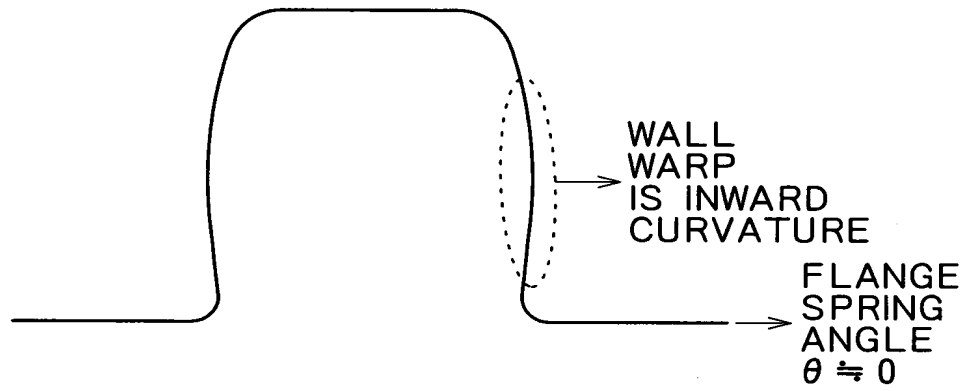


FIG. 29

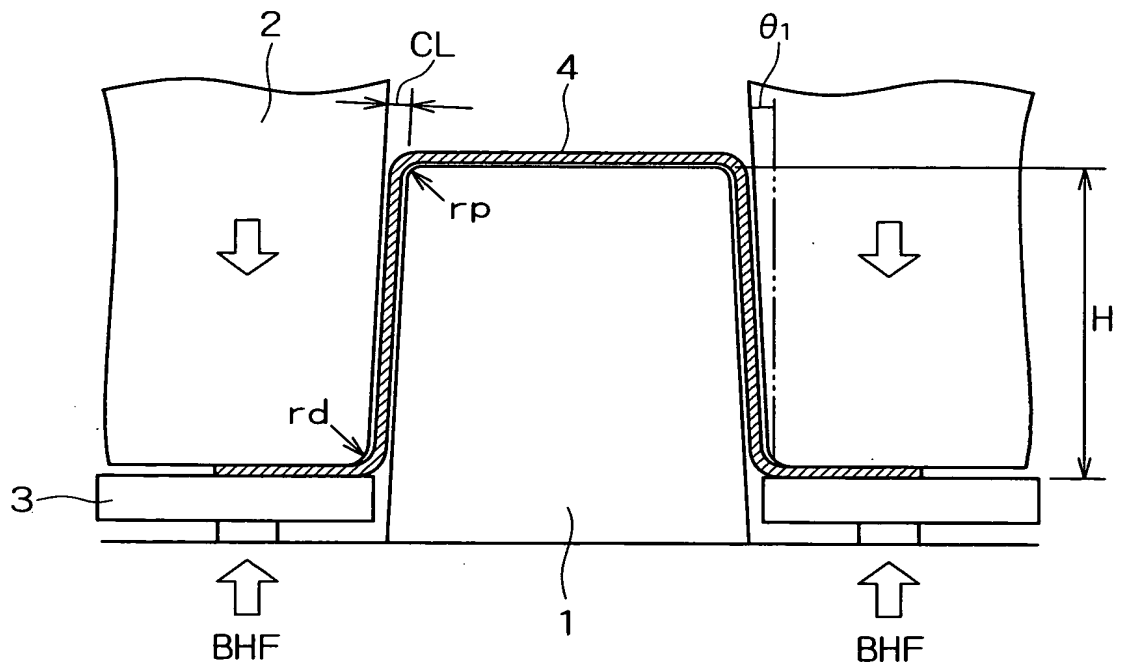


FIG. 30A

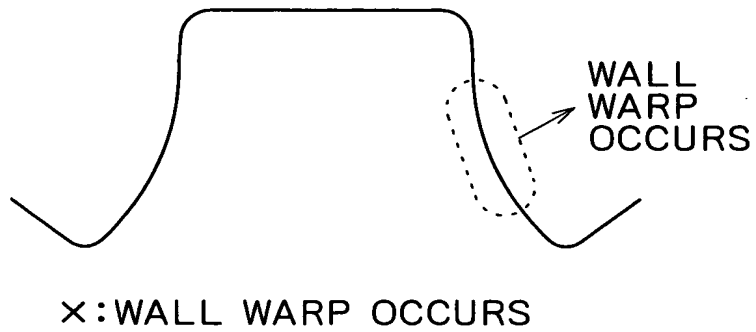


FIG. 30B

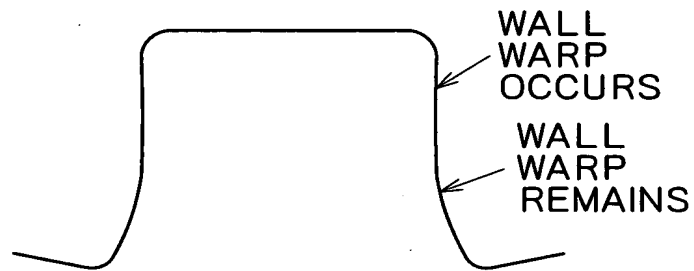


FIG. 30C

